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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,530	12/08/2000	Gregory H. Milby	9362	1966

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EXAMINER

RIMELL, SAMUEL G

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 10/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/733,530

Applicant(s)

MILBY ET AL.

Examiner

Sam Rimell

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

SAM RIMELL
EXAMINER

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Zheng et al.

Claim 1: FIG. 3 of Zheng et al. discloses a first file management context (first three columns of table) which is a pool of storage elements (bits) that indicates the allocation of permanent files (on disk). A second file context (all of columns in table of FIG. 3) is a second file management context and indicates the allocation of permanent and temporary storage elements (disk and cache) using a pool of storage elements (bits). Examiner has numbered the columns in FIG. 3 for clarity.

As seen in FIG. 1, the entire file management context shown in FIG. 3 (illustrated by the item 39 in FIG. 1) is stored in the cache and is associated with the disk.

Claim 2: The first file management context (columns 1-3 of FIG. 3) is a subset of the second file management context (columns 1-5 of FIG. 3).

Claim 3: The system includes a control module (20) which can update the second file management context (columns 1-5 in FIG. 3) without updating the first file management context (columns 1-3 in FIG. 3). For example, block 1 in FIG. 3 has been updated to include a pointer in the fourth column (belonging to the second context), without updating the bits in columns 1 and 3, (belonging to the first context).

Claim 4: The control module can update the bits in both of the first and second file management contexts. This is illustrated by block 3 in FIG. 3, where all of the columns have been updated. By converting the bits from “0” to “1” and activating the pointer.

Claim 5: The pool of storage elements (pool of bits in FIG. 3) correlate to blocks of memory in either the disk (persistent storage) or cache (non-persistent storage).

Claim 6: The table of FIG. 3 is used for purposes of memory allocation. This table allows the control module (20) to allocate to temporary storage (cache) or permanent storage (disk).

Claim 7: The first storage management context (cols. 1-3 of FIG. 3) includes a storage identifier map (col. 1) and an allocation unit map (col. 3). These columns indicate allocations of memory to permanent storage.

Claim 8: Since the second storage management context includes all of the elements of the first storage management context, it includes the storage identifier map and allocation unit map already contained in the first storage management context.

Claim 9: The system (20) is readable as an access module and contains non-persistent memory (cache).

Claim 10: The access module (20) is a server (col. 4, line 67).

Claim 11: The system includes an application programming interface (layer 23 in FIG. 1) which is invocable to access the first and second file management contexts.

Claim 12: FIG. 3 illustrates that the file management contexts (illustrated by block 39 in FIG. 1) are associated with both the cache and the disk. Since the disk is a persistent storage, any data from the disk can inherently be copied to the cache after a system crash.

Claim 13: FIG. 1 of Zheng et al. illustrates a single access module containing storage devices and file management contexts, although within a network, additional access modules can inherently be utilized.

Claim 14: The access module can perform database logging (see 33 in FIG. 1). The logging occurs conditionally, such as when the system experiences a crash (col. 8, lines 52-61).

Claim 15: Any data contained in any file is readable as “user data”. Any data contained in the table of FIG. 3 is considered to be a “query result” since the data in the table results from transactions.

Claim 16: See remarks for claim 1 and 3.

Claim 17: The first file management context is a map of memory allocation made on persistent memory, while the second file management context is a map of memory allocation on both persistent and non-persistent memory. During a crash, data on persistent memory is inherently retained, while data on non-persistent memory is inherently lost.

Claim 18: See remarks for claim 7.

Claim 19: See remarks for claim 8.

Claim 20: In FIG. 3, the resetting of bits from “0” to “1” is considered the activation of a flag. The activation of a pointer is also considered the activation of a flag.

Claim 21: See remarks for claim 12.

Claim 22: See remarks for claim 14.

Claim 23: See remarks for claim 1.

Claim 24-25: See remarks for claim 20.

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Any inquiry concerning this communication should be directed to Sam Rimell at telephone number (703) 306-5626.

A handwritten signature in black ink, appearing to read 'S. Rimell', is positioned above the printed name.

Sam Rimell
Primary Examiner
Art Unit 2175